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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,734

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Hirofaka Kobayashi

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EXAMINER

HENDERSON, ADAM

ART UNIT

PAPER NUMBER

2622

MAIL DATE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/796,734

Applicant(s)

KOBAYASHI, HIROTAKE

Examiner

Adam L. Henderson

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1, 3-5, 7-10, and 12-17 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 13 November 2007 have been fully considered but they are not persuasive. On page 7 of the current response Applicant alleges that surface of Fuke et al. (US Patent 6,011,929) fails to disclose the convexo-concave surface as required by the claims. The examiner disagrees. In the specification on page 6 lines 1-3, Applicant defines convexo-concave as "a wavy surface formed by combining a wavy surface and a saw-shape surface" or "the combining surfaces have predetermined acute angles." In FIGS. 3A and 3B of the application, the Applicant shows the alleged convexo-concave surface. However the surface as drawn appears to only have be a saw-shape surface, thus not fulfilling the first supplied definition, or it could be described as having obtuse angles at each peak, also failing to meet the second supplied definition. Turning to *The American Heritage College Dictionary*, convexo-concave is defined as: "1. Convex on one side and concave on the other. 2. Having greater curvature on the convex side than on the concave side." Since the rear of the lens, as drawn, is clearly flat, it is obvious the Applicant is not referring to the standard dictionary definition of convexo-concave. However, if one looks at the side profile of the lens in FIG. 1 of Fuke et al. one can clearly see 2 acute (saw-shape) angles, a wave (the central curve), followed by two more 2 acute (saw-shape) angles thus meeting either of the two definitions supplied by Applicant. Therefore if Applicant intends the convexo-concave lens to be different than the lens of Fuke et

al. further clarification as to what exactly is intended by "convexo-concave" will be required since the examiner believes Fuke et al. fully meets the limitations as currently described.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhisa (JP 11-133490) in view of Fuke et al. (US Patent 6,011,929).

5. With regard to claim 1 Kazuhisa discloses a flash unit comprising:

an LED (light emitting diode 1, FIG. 1);

a guide which is disposed between the LED and the output portion for preventing the light emitted from the LED from dispersing (reflector 2, FIG. 1), wherein

the guide has an opening section that is equal to the emission area of the LED, and the opening section is disposed in proximity of the emission area or in contact with the emission area (FIG. 1).

Kazuhisa fails to disclose a light condensing plate which comprises a light dispersing surface on a side of the light condensing plate facing the LED to equalize intensity of light emitted from the LED and a convexo-concave surface on the other side of the light condensing plate for condensing the light emitted from the LED.

Fuke et al. disclose a light condensing plate which comprises a light dispersing surface (diffusion controlling portion 6, FIG. 2A) on a side of the light condensing plate facing the light emitting element to equalize intensity of light emitted from the light emitting element and a convexo-concave surface (condensation controlling portion 7, FIG. 2A, column 6 lines 33-43) on the other side of the light condensing plate for condensing the light emitted from the light emitting element.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the flash unit of Kazuhisa to include the lens taught by Fuke et al. in order to prevent distortion of colors and/or lighting caused by the flash operation when photographing (Fuke et al. column 7 lines 9-17).

6. Claims 3, 4, 9, 10, 12, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhisa (JP 11-133490) in view of Fuke et al. (US Patent 6,011,929) and Kobayashi (US Patent 6,823,198).

7. Claim 3 is rejected under the same analysis as claim 1, however Kazuhisa and Fuke et al. fail to disclose a camera module, the LED being adjacent to the camera module on a substrate.

Kobayashi discloses a camera module (electronic camera 18, FIG. 1), the light emitting element (electronic flash 22, FIG. 1) being adjacent to the camera module on a substrate (FIG. 3).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the flash unit of Kazuhisa and Fuke et al. to be the flash module of Kobayashi in order

to prevent the uneven light distribution from the flash unit (Fuke et al. abstract) and to miniaturize and reduce the cost of the flash device (Kazuhisa, Abstract: Problem to be solved).

8. With regard to claim 4 Kobayashi discloses wherein the light condensing plate (protector 30, FIG. 1) is unitarily formed with a lens (taking lens 20, FIG. 1) of the camera module [the flash device and the camera module are unitarily part of the portable phone 10].

9. With regard to claim 9 Kobayashi disclose wherein the emission area of the LED is disposed lower than said lens of the camera module with reference to a surface of a board to which the camera module is attached [depending on how the camera is held will determine if the flash unit is lower than the camera module].

10. Claim 10 is rejected under the same analysis as claim 3.

11. Claim 12 is rejected under the same analysis as claim 4.

12. Claim 16 is rejected under the same analysis as claim 9.

13. All limitations of claim 17 are addressed in the rejection of claim 3, claim 17 is likewise rejected.

14. Claims 5, 7, 8, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhisa (JP 11-133490) in view of Fuke et al. (US Patent 6,011,929) and Kobayashi (US Patent 6,823,198) as applied to claims 3, 4, 10, and 12 above, and further in view of Fumio et al. (US 2002/0089601 A1).

15. With regard to claim 5 Kazuhisa, Fuke et al, and Kobayashi disclose the camera device according to claim 3 but fail to disclose the camera device wherein the light condensing plate is unitarily formed with a lens cover of the camera module.

Fumio et al. disclose the camera device wherein the light condensing plate is unitarily formed with a lens cover (lens cover 8, FIG. 4) of the camera module.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the camera device of Kazuhisa, Fuke et al, and Kobayashi to include the lens cover taught by Fumio et al. in order to protect the lens system from damage and scratches when the camera portion is not in use.

16. With regard to claim 7 Fumio et al. disclose wherein a thickest dimension  $T$  of a plate area between the light condensing plate and said lens is  $T \leq 1.0$  mm (FIG. 4) [when the lens cover 8 is closed the condensing plate of the flash device is going to be directly adjacent to the lens system 6, thus having a distance  $T \leq 1.0$  mm].

17. With regard to claim 8 Fumio et al. disclose wherein a thickest dimension  $T$  of a plate area between the light condensing plate and lens cover is  $T \leq 1.0$  mm (FIG. 4) [the condensing plate is a part of the lens cover 8, thus there is no distance between them].

18. Claim 13 is rejected under the same analysis as claim 5.

19. Claim 14 is rejected under the same analysis as claim 7.

20. Claim 15 is rejected under the same analysis as claim 8.

### *Conclusion*

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

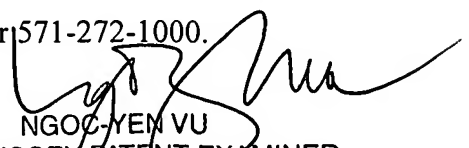
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam L. Henderson whose telephone number is 571-272-8619. The examiner can normally be reached on Monday-Friday, 7am to 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALH

4 Jan. 2008

  
NGOC-YEN VU  
SUPERVISORY PATENT EXAMINER